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Agenda item 10 (e)

NATURAL DISASTER REDUCTION: ECONOMIC ASPECTS OF
DISASTER REDUCTION FOR SUSTAINABLE DEVELOPMENT

Report of Technical Committee E

1. At its 1st plenary meeting, on 23 May 1994, the Conference approved the organization of its work as set out in document A/CONF.172/3 and decided to allocate agenda item 10 (Natural disaster reduction) to the Technical Committees. Technical Committee E was organized by the United States National Academy of Sciences and the World Bank and considered agenda item 10 (e), entitled "Economic aspects of disaster reduction for sustainable development", on 25 May.

2. Technical Committee E had before it documents A/CONF.172/9 and Add.1, which included the programme of the technical session and summaries of the presentations.

3. The Committee had the following officers: Mr. Victor Osipov (Russian Federation) as Chairman; Ms. Caroline Clarke Guarnizo (United States National Academy of Sciences) and Mr. Mohan Munasinghe as Technical Secretaries.

4. The following speakers made presentations:

(a) Messrs. Romulo Caballeros and Ricardo Zapata-Marti, Economic Commission for Latin America and the Caribbean (Mexico), who spoke on "The impacts of natural disasters on national

economies and the implications for the international development and disaster communities";

(b) Mr. Atiq Rahman, Bangladesh Centre for Advanced Studies (Bangladesh), who spoke on "The context of disasters and sustainable development: the case of a growing city in a developing country";

(c) Ms. Mary Anderson, Collaborative for Development Action (United States), whose paper was on "Disaster vulnerability and sustainable development: a general framework for assessing vulnerability";

(d) Mr. Randall Kramer, School of the Environment, Duke University (United States), who spoke on "Advantages and limitations of benefit-cost analysis for evaluating investments in mitigation";

(e) Mr. Gunter Hecker, Asian Development Bank (Philippines), who spoke on "Disaster-related activities of the Asian Development Bank: an economic perspective";

(f) Mr. Walter Lynn, United States National Committee for the International Decade for Natural Disaster Reduction, who presented the paper by Mr. Howard Kunreuther, Risk Management and Decision Processing Center, University of Pennsylvania (United States) entitled, "The role of insurance in reducing losses from natural disasters";

(g) Mr. Gianfranco de Giusti, Unione Italiana de Riassicurazione (Italy), who spoke on "The Italian Insurance Market Project";

(h) Mr. Wang Fushan, People's Insurance Company of China (China), who spoke on "Insurance industry in the economy on natural disaster in China".

5. Mr. Omar Dario Cardona, National Office for Prevention and Attention to Disasters (Colombia); Mr. Stephen Bender, Organization of American States; and Mr. Harry Jayasingha, Asian Disaster Preparedness Center (Thailand), served as moderators for the Technical Committee.

6. The Committee made the following findings and recommendations:

(a) Disaster prevention and mitigation are essential components of the three main elements of sustainable development, namely economic, social, and environmental;

(b) Reducing vulnerability, especially of the poor, is a key element of disaster prevention strategy;

(c) Multi-disciplinary analysis is essential. In particular, social vulnerability analysis should receive as thorough a treatment as economic and technical analyses;

(d) There is a need for better data and monitoring, especially for indicators of vulnerability in relation to the economic, social, and environmental aspects;

(e) Economic valuation of disaster impacts should be improved further. Where valuation fails, benefit-cost analysis should be used in conjunction with multi-criteria analysis (integrating economic, social, and environmental aspects in a balanced way) in decision-making to reduce vulnerability and increase sustainability. Valuation can help set priorities among those types of impacts which should be addressed and identify which are the most cost-effective measures;

(f) Addressing risk issues should have high priority. This includes risk estimates (uncertainty and ambiguity), coverage (access and multiple hazards), enforcement (legislation and regulation), and sharing (private and public sectors);

(g) In market economies, formal insurance mechanisms are well developed for dealing with all kinds of hazards; however, some insurance elements for natural disasters can be further developed to improve risk reduction. Greater emphasis should be given to applying differential rates in order to encourage adoption of mitigation measures, for example;

(h) Many insurance techniques should be adapted more systematically in the developing world. However, because of the large number of poor and the absence of well-functioning markets, non-formal insurance mechanisms should also be strengthened, drawing upon knowledge based on ways in which societies have traditionally coped with risk;

(i) Developing countries face special challenges in the adoption of disaster mitigation in the process of sustainable development because: they have many poor who are also the most affected by natural disasters; their institutional capacity is weak; resources are inadequate; and markets are lacking;

(j) A high degree of self-reliance is important at the community and the national level to improve resiliency to natural disasters. The international community can do more to assist developing countries to ensure sustainable development. In particular, the development banks should pay greater attention to disaster prevention and mitigation. International assistance dedicated for disaster prevention and mitigation, which has never been great, should be increased because the return on investment can be substantial. Disaster reduction strategies should also be integrated into the full range of sustainable development projects and policies, especially macroeconomic policies which are the most important;

(k) To address the need for capacity-building, training, and resource mobilization for disaster prevention and mitigation in the context of sustainable development, regional centres should be developed, strengthened, and their ties improved.